

REMARKS

The Examiner is thanked for carefully considering the amended claims. Claims 1-2, 5, 8-13, 15-16 and 30-31 have been elected in response to a restriction requirement, though Applicant respectfully disagrees with said restriction requirement. By this amendment, Claims 8 and 15 have been amended. No claims have been added. Hence, Claims 1-2, 8-13, 15-16 and 30-31 are currently pending in the Application. It is respectfully submitted that the amendments to the claims as indicated herein do not add any new matter to this application.

REJECTIONS UNDER 35 U.S.C. § 112

Claim 15 has been rejected under 35 U.S.C. § 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 as amended is now in compliance with the requirements of 35 U.S.C. § 112, second paragraph.

REJECTIONS UNDER 35 U.S.C. § 102 and § 103

Claims 1-2, 8-13, 15-16 and 30-31 have been rejected under 35 U.S.C. Sections 102(e) and 103(a) respectively as being unpatentable over *Mills et al.* (U.S. Patent 6,055,560) in view of *Krause et al.* (U.S. Patent 5,926,205). Applicant respectfully submits that neither *Krause* nor *Mills*, either taken alone or in combination, discloses the STB as claimed in the original independent claims 1 and 30, nor amended claim 15.

Neither *Krause* nor *Mills*, either taken alone or in combination, discloses “[A] computer implemented universal...broadcast method comprising...preparing a delivery matrix defining a data transmission sequence suitable for broadcast, to a plurality of clients, on-demand data in a non client specific manner, whereby transmission of said on-demand data files **requires** an amount of **transmission bandwidth** that is **independent of the number of** said plurality of **clients...**”

Neither *Krause* nor *Mills*, either taken alone or in combination, teaches providing video-on-demand (VOD) programs on a fixed bandwidth independent of the number of users receiving the VOD programs. *Krause* teaches a server to broadcast video on demand data *only to requesting users*. *Krause* further teaches a system which requires a variable transmission bandwidth dependent upon the number of users receiving a selected VOD program. *Mills* teaches an interactive video system supporting functions typically expected with a VCR. Though

Mills may teach serving a “large number of subscribers,” col. 3, line 58, the teachings of Mills cannot be implemented to provide VOD to an unlimited number of clients using a ***transmission bandwidth independent of the number of clients***. Though Mills can broadcast the same feed to many clients such a system would require more bandwidth as clients request different VOD programs, unlike the system of the present invention. The present invention uses the limitation ***“independent of the number of said plurality of clients.”*** Though this may occasionally occur in the system of Mills, this is not a set attribute of the system of Mills. Only by implementing a uni-directional client server architecture can bandwidth requirements be independent of the number of users. Presently a single broadcast server system in accordance with the present invention is providing VOD service to the Beijing metropolitan area. Such is only possible because the ***bandwidth requirement*** of VOD broadcasts in accordance with the present invention are ***independent of the number of subscribers***. A single VOD broadcast server in accordance with the present invention can theoretically provide VOD service to every household in the world via satellite and cable infrastructure. Neither *Mills* nor *Krause*, either independently or in combination can extend VOD to an ***unlimited*** number of subscribers.

Further, Applicant respectfully submits that neither *Krause* nor *Mills*, either taken alone or in combination, discloses the STB as claimed in the amended independent claim 8.

Neither *Krause* nor *Mills*, either taken alone or in combination, discloses “[A] computer implemented method for controlling a universal set-top-box (STB... comprising ... receiving digital data ... an electronic program guide (EPG) indicating the nature of data transmitted in each of said plurality of channels, wherein a first one of said plurality of channels includes a data-on-demand program providing on-demand data in a non client specific format, said EPG indicating that said data-on-demand program includes a first data file being represented by a first plurality of data blocks, said first plurality of data blocks being provided sequentially within time slots in a manner such that a user of said universal STB may at any time begin accessing said first data file within one time slot, ***and wherein no request for said data-on-demand program was sent from a receiving STB...***”

Neither *Krause* nor *Mills*, either taken alone or in combination, teaches providing video-on-demand (VOD) programs on a fixed bandwidth without receiving specific requests for VOD programs. The system of the present invention provides VOD programs ***whether or not anyone requests them***. *Krause* teaches a server to broadcast video on demand data *only to requesting*

users. Krause further teaches a system which requires a variable transmission bandwidth dependent upon the number of users receiving a selected VOD program. *Mills* teaches an interactive video system supporting functions typically expected with a VCR. Though *Mills* may teach serving a “large number of subscribers,” col. 3, line 58, the teachings of *Mills* cannot be implemented to provide VOD if clients do not request VOD programs. Only by implementing a uni-directional client server architecture can VOD be provided independent of whether clients request VOD programs.

Thus, Amended Claims 1, 8, 15 and 30 contain limitations that are not suggested by either *Krause* or *Mills*, either taken alone or in combination. Therefore, based on the reasons stated herein, it is respectfully submitted that Claims 1, 8, 15 and 30 are allowable over the art of record and that Claims 1, 15 and 30 be held in condition for allowance.

Claims 2, 5, 9-13, 16 and 31 depend from claims 1, 8, 15 and 30, respectively and are therefore also allowable over the art of record and should be held in condition for allowance.


CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (510) 252-4417.

Respectfully submitted,

Date: September 26, 2004



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VERSION OF CLAIMS WITH MARKINGS TO SHOW CHANGES MADE

8. (Once Amended) A computer implemented method for controlling a universal set-top-box (STB), said method comprising the acts of:

receiving digital data in a plurality of channels and an electronic program guide (EPG) indicating the nature of data transmitted in each of said plurality of channels, wherein a first one of said plurality of channels includes a data-on-demand program providing on-demand data in a non client specific format, said EPG indicating that said data-on-demand program includes a first data file being represented by a first plurality of data blocks, said first plurality of data blocks being provided sequentially within time slots in a manner such that a user of said universal STB may at any time begin accessing said first data file within one time slot, and wherein no request for said data-on-demand program was sent from a receiving STB;

providing said EPG data to said user of said universal STB;

receiving a data processing instructions from said user of said universal STB requiring access of said first data file; and

implementing said instructions from said user of said universal STB.

15. (Once Amended) A computer implemented universal broadcast method comprising the acts of:

at a universal data broadcast system, performing the acts of:

preparing a delivery matrix defining a data transmission sequence suitable for broadcast, to a plurality of clients, on-demand data in a non client specific manner, whereby transmission of said on-demand data files requires an amount of transmission bandwidth that is independent of the number of said plurality of clients;

providing a first channel server suitable for the transmission of on-demand data via a first channel;

prior to data broadcast, preparing said first channel server for the transmission of data-on-demand information, said preparing said first channel server including the acts retrieving said delivery matrix into a memory of said first channel server and retrieving data blocks scheduled for delivery by said delivery matrix into said memory of said first channel server;

transmitting an electronic program guide (EPG) including information indicating that said first channel contains on-demand data; and

transmitting data from said first channel and [said] a second channel;
and
at a universal STB, performing the acts of:
 receiving digital data including data in said first channel, and said EPG;
 providing said EPG data to a user of said universal STB;
 receiving data processing instructions from said user of said universal STB; and
 implementing said instructions from said user of said universal STB.